






UNICOM INDUSTRY		Product Specification		Doc.No.:UI-PS-101	
				Revision: B/03	
Name	PPSU Series Push-Fit Fittings	Date	2020.06	Prepared:	
Standards	ASSE 1061 (latest)	Edit date	2020.06	Approved:	
		Edit Ref.	2020.06	Authorized:	

1.Scope

The Unicom PPSU push-fit fitting plumbing system is the most reliable and easiest way to join copper, CPVC, PEX or PE-RT pipe in any combination without the need for soldering, clamps, unions or glue. Available in an array of over 60 fittings and sizes ranging from ½" to 1" copper tube size (CTS), including couplings, elbows, tees, reducers, threaded adapters, caps, Slips and valves.

2.Application

Unicom PPSU fittings are suitable for hard drawn copper tubing Type K, L and M (and annealed Type M not to exceed 3/8 nominal) complying with ASTM B88, PEX tubing complying with ASTM F876 or CSA B137.5, CVPC tubing complying with ASTM D2846 or CSA B137.6, PE-RT tubing complying with ASTM D2769 or CSA B137.18, HDPE tubing complying with ASTM D2737, and other metal or non-metal pipes.

Unicom PPSU fittings are used in domestic and commercial applications for hot and cold potable water distribution systems, hydronic heating and various other piping systems and are approved for installations above and below ground (behind-wall) applications without access panels.

Please consult with local code for final approval. Failure to comply with the



above types of pipe or application could result in failures.

3. Standard Working Parameters

-Operating Pressure: 200 PSI max.

-Operating Temperature: 35~200°F

4. Component Materials

(1) Body: PPSU

(2) O-ring seal: EPDM

(3) Protector ring: POM

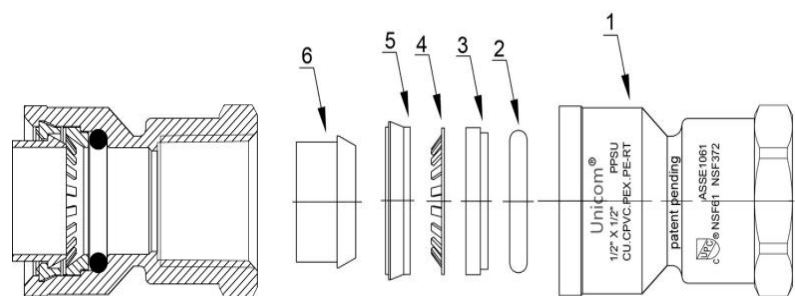
(4) Grab ring: Stainless steel

(5) Retainer ring: POM

(6) Release collar: POM

(A) PEX stiffener: PSU (Optional)

(B) Peripherals: Tools of various functions and materials, available upon request.



5. Approval & Listing

-US Patent Pending

-IAPMO / UPC

-cUPC-ASSE 1061

-ANSI / NSF 61

-ANSI / NSF 372 (AB 1953)



6. User Guideline

6.1 General Installation Overview:

-1st Stage: The tube shall be inserted into the Fitting through a release collar and then through a stainless steel grab ring. The grab ring has teeth that open out and grip onto the tube.

-2nd Stage: The tube shall be pushed through an O-ring protector which aligns the pipe. A specially formulated EPDM O-ring shall be compressed between the wall of the fitting and the tube before the end of the tube reaches the tube stop of the fitting.

-Only when the pipe has passed through the grab ring and O-ring, and reached the pipe stop shall a secure joint be created.

6.2 Examination:

-If installing PEX tubes, ensure that the tube stiffeners have been installed.-Ensure the fittings are free from any damage, including but not limited to damaged or missing O-ring, cracked body or parts, deformed grab ring, etc.

6.3 Preparation:

-The tubing shall be cut square to ensure a proper installation.

-The tubing shall be free of dirt, debris or scale buildup. Any burrs shall be removed using a deburring tool.

-Mark the tubing to use as visual verification of proper insertion (depth) into the fitting.

6.4 Installation:

-push-fit fitting fittings shall be installed in accordance with the installation instructions.



-Install components having a pressure rating equal to or adequate for the system operating pressure.

-Threaded joints shall have thread seal tape applied to the male ends. Tighten joint with a wrench and backup wrench as required.

-Provide protection against abrasion where tubing/fitting is in contact with other building and or burial materials by wrapping with an approved tape, pipe insulation or otherwise suitable method of isolation.

-Glycol mixture for hydronic heating application is acceptable conditionally.

-Pressure test behind-wall installation/system for no less than 24 hours to ensure proper performance.

-Removal and reuse of push-fit fitting fittings is allowed when executed in accordance with the installation instructions.

6.5 Field Quality Assurance:

The piping system shall be tested for joint tightness and integrity. The piping system shall be filled with water; the system shall be pressurized to the maximum pressure and length of time required by the code or standard; the system shall have no leaks, failures and damages of any kind at the rated/test pressure.

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